# PMA-242
# Defense Suppression Weapons

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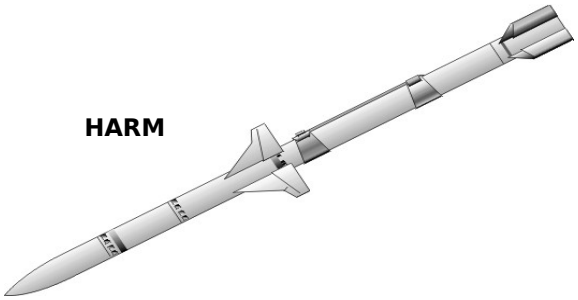
NAVAIR

# PMA-242 Products

HARM



**S&T TRANSITIONS**

- Time Sensitive Strike
  - -High Speed Strike
  - -Joint Directed Energy Weapon
  - -HSAD – High Speed ARM Demo FNC
- Littoral Sea Control
  - -LOGIR Demo FNC
  - -SuW Follow on

Crew Served Weapons

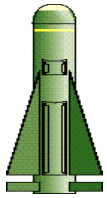
Airborne Cannons

M61A1/M61A2

AARGM – Advanced Anti-Radiation Guided Missile

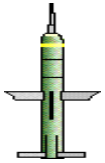
JCM – Joint Common Missile

Penguin



MAVERICK
LASER / IR

HELLFIRE
HELLFIRE II



TOW
TOW 2A
(AIR)

SIDEARM

Rockets
APKWS
LAUNCHERS

JATO

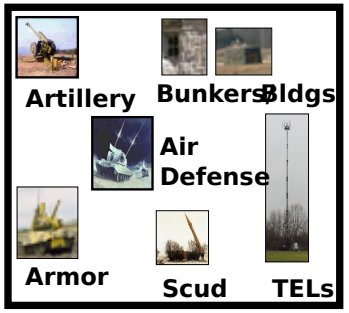
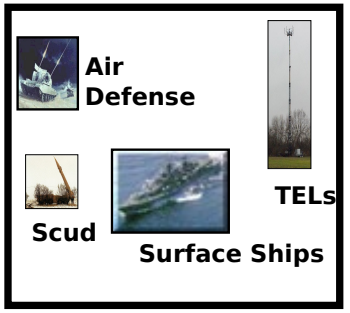
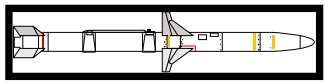
GATOR

Marine Location
Markers &
Paraflares

20mm
25mm
AMMO

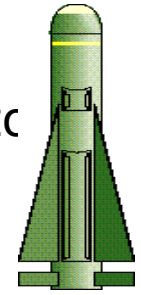
## 14 Fielded Systems & 4 Developmental Systems

# PMA-242 Weapons Roadmap

| Weapon | FY02 | FY05 | FY10 | FY15 | FY20 | Target Set |
|---|---|---|---|---|---|---|
| | MAVERICK | | | | |   |
| | TOW | | | JCM | | |
| | HELLFIRE | | | | | |
| | 2.75” ROCKETS | | | | | |
| | 5” ROCKETS | | | APKWS / (LOGIR) | | |
| | | | | | | |
| | PENGUIN | | | | |   |
| | | | | (ASuW Follow On) | | |
|  | HARM | | | | | |
| | | | | AARGM | | |

# JCM Program Overview

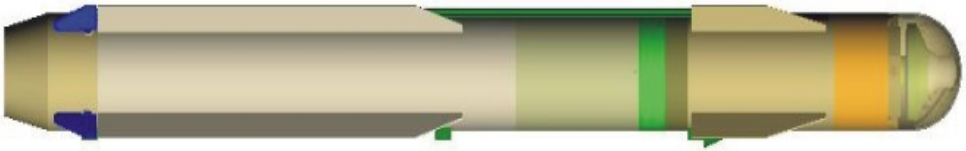
- **Replacement for Maverick, Hellfire and TOW**
  - Inventories Aging and Dwindling
  - Single Mode Seekers
  - Large Logistic footprint W/Multi-Missile Invento
- **Neckdown to Joint Common Missile**
  - Per N78/APW strike weapons roadmap
  - Multi-mode Seeker = all weather
  - Moving targets – hard and soft
- **Total Ownership Cost Reduction**



MAVERICK
LASER / IR

HELLFIRE
HELLFIRE II

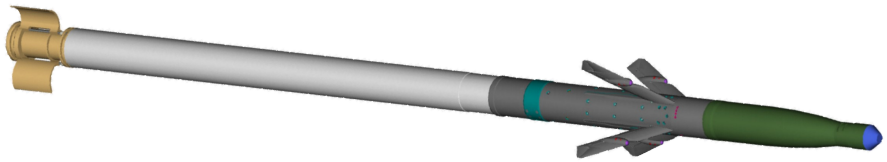
TOW
TOW 2A
(AIR)



SDD Program Start FY04, EOC FY08 and

# APKWS

## Advanced Precision Kill Weapon System: 2.75”



**To be initially fielded on AH-1W**

**Planned procurement: 1000/year**

**Contractor: General Dynamics/BAE**

**RDT&E Budget (NC05)**

| FY04 | FY05 | FY06 |
|---|---|---|
| 4.7M | 12.5M | 12.5M |

**Milestones**

**MS B – Dec 02**

**Systems Requirements Review – Jun 03**

**Design Review 1 – Oct 03**

**MS C – FY05**

**OPEVAL – FY07**

**IOC – FY08**

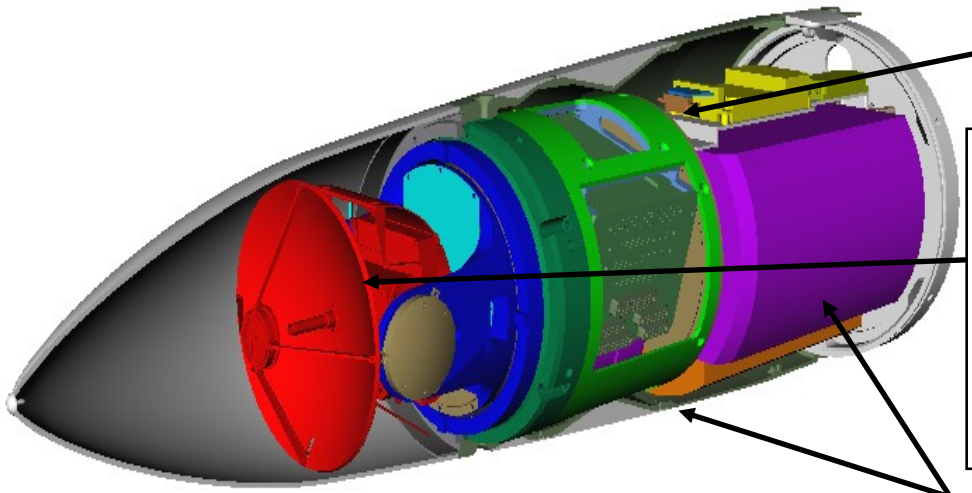
**Comments/Issues**

**Army Lead – Navy Joint Interest**

**DoN requirements document in work**

# AGM-88E

## (AARGM ATD TECHNOLOGY OVERVIEW)



**GPS aided INS**

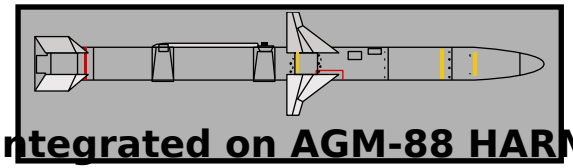
- Provides mid-course guidance and supports sensor fusion/autonomous ranging
- **Demonstrated CTV1 and CTV2 (Mar/Jun 00)**

**Active Millimeter Wave seeker**

- Performs terminal target acquisition,track, guidance, and fuzing
- Expands HARM target set
- Field tested
- **Captive Carry flights began Sep 00**

**Wide-band, passive Anti-Radiation Homing (ARH) seeker**

- Broadband passive conformal antenna array
- Autonomous target detection, identification, tracking, and target ranging
- Field of view, sensitivity, DF accuracy, & processing to exceed current HARM capabilities
- **Field and anechoic chamber testing continuing at Nellis and China Lake**



**Integrated on AGM-88 HARM**

# PMA-242 Technical Needs

- ATA algorithms for MMW and IR applications
- Miniature MMW radars with coherent signal processing/high resolution
- Very high temperature radome materials and designs
- Dome materials and coatings
- High speed data link
- Wide FOV/long acquisition range multimode seeker
- New battery technologies
- Smart multi-mission fuzes
- Improved warheads
- Low-cost, disposable GPS and/or INS
- Power management and heat removal techniques
- Energetics/Explosives IM improvements